

A diagram of a fluid element of length  $L$  in a pipe. The pipe has a varying cross-section, with diameter  $D$  at the inlet and  $d$  at the outlet. The inlet conditions are pressure  $P_0$  and velocity  $V_0$ . The outlet conditions are pressure  $P_i$  and velocity  $V_i$ . The pressure at the inlet is  $P_0$  and at the outlet is  $(P_0 - \Delta p)$ . The diagram shows the fluid element with arrows indicating flow direction and pressure forces.

Figure 2

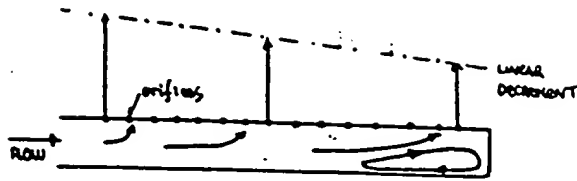


Figure 3a

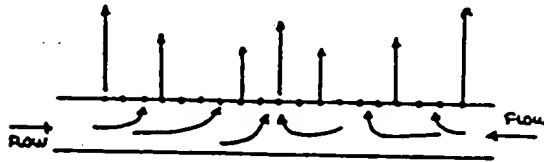


Figure 3b

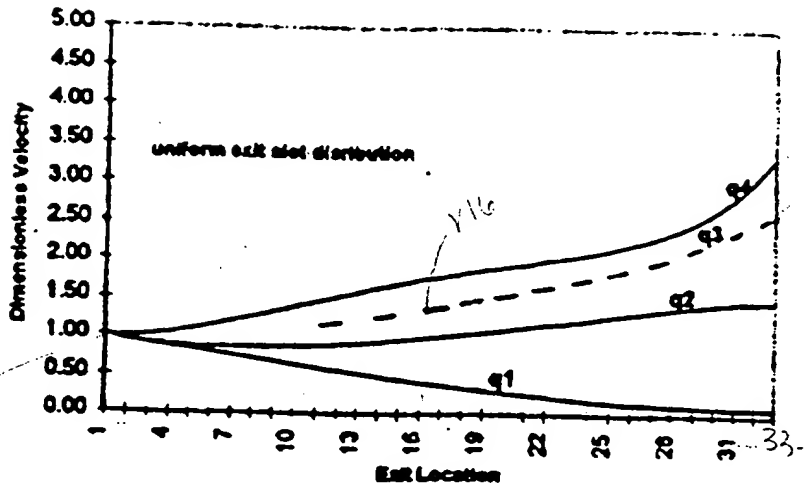
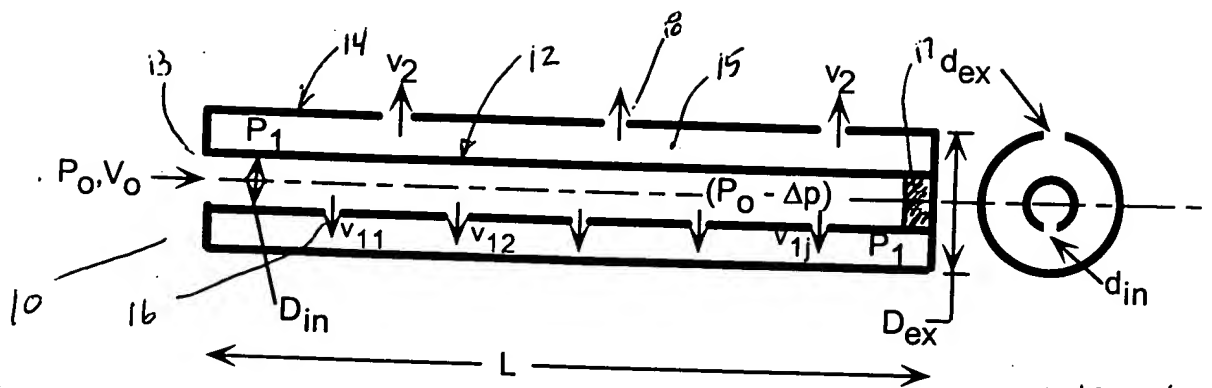


Figure 4

PRIOR ART

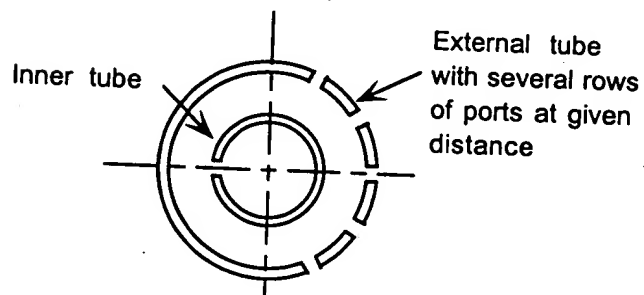
V1

V33



FIG\_5

FIG\_6a



FIG\_6b

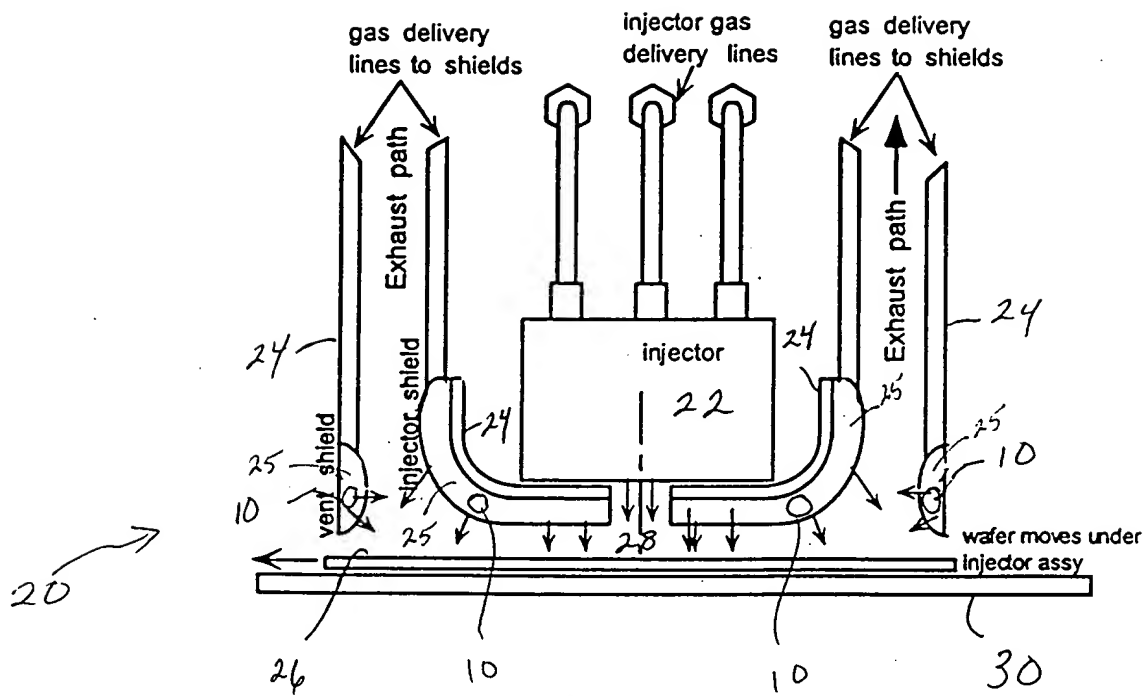


FIG-7

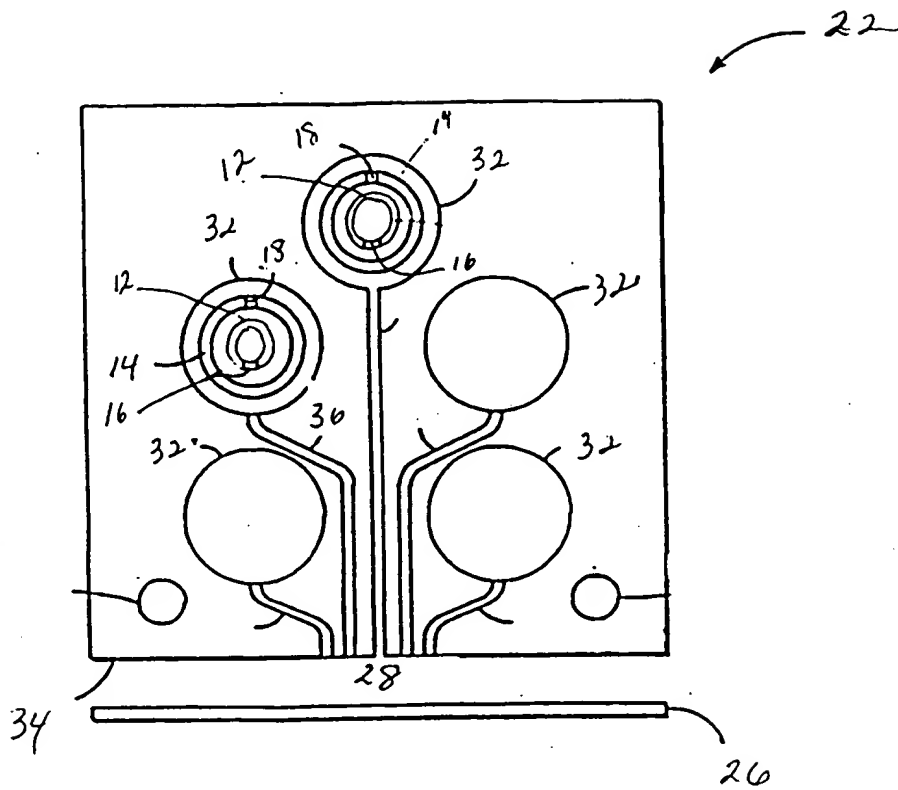


Figure 8